```
=> d his ful
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L7

L8

1.9

(FILE 'HOME' ENTERED AT 11:45:18 ON 12 JUL 2006)

FILE 'REGISTRY' ENTERED AT 11:45:55 ON 12 JUL 2006

E ST2195/CN E ST 2195/CN

STR 566189-21-7 1.1

0 SEA SSS SAM L1 L2

1 SEA ABB=ON 566189-21-7/RN L3

FILE 'HCAPLUS' ENTERED AT 11:53:06 ON 12 JUL 2006

2 SEA ABB=ON L3 L4

2 SEA ABB=ON L4 AND (PRD<20031216 OR PD<20031216) L5

FILE 'MEDLINE, BIOSIS, EMBASE, JAPIO, JICST-EPLUS' ENTERED AT 11:55:05 ON 12 JUL 2006

O SEA ABB=ON L4 1.6

> FILE 'USPATFULL' ENTERED AT 11:55:16 ON 12 JUL 2006 1 SEA ABB=ON L4 AND (PRD<20031216 OR PD<20031216)

> FILE 'HCAPLUS' ENTERED AT 11:57:41 ON 12 JUL 2006 2 SEA ABB=ON L5 AND (?HYPERGLYC? OR ?HYPERLIPID?)

FILE 'USPATFULL' ENTERED AT 11:58:14 ON 12 JUL 2006 1 SEA ABB=ON L7 AND (?HYPERGLYC? OR ?HYPERLIP?)

FILE 'REGISTRY' ENTERED AT 11:59:41 ON 12 JUL 2006

STRUCTURE L10

L11 O SEA SSS SAM L10

STR L10 L12

O SEA SSS SAM L12 L13

2 SEA SSS FUL L12 L14

FILE 'HCAPLUS' ENTERED AT 12:03:34 ON 12 JUL 2006 2 SEA ABB=ON L14 2 Clfs from CA Police

FILE 'USPATFULL' ENTERED AT 12:04:32 ON 12 JUL 2006

1 SEA ABB=ON L14

/ Oil from USPatfull

ELLE USPATFULL' ENTERED AT 12:04:32 ON 12 JUL 2006 L15

L16

FILE HOME

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 11 JUL 2006 HIGHEST RN 892124-43-5 DICTIONARY FILE UPDATES: 11 JUL 2006 HIGHEST RN 892124-43-5

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of

experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

FILE HCAPLUS

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FILE COVERS 1907 - 12 Jul 2006 VOL 145 ISS 3 FILE LAST UPDATED: 11 Jul 2006 (20060711/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

## FILE MEDLINE

FILE LAST UPDATED: 11 JUL 2006 (20060711/UP). FILE COVERS 1950 TO DATE.

On December 11, 2005, the 2006 MeSH terms were loaded.

The MEDLINE reload for 2006 is now (26 Feb.) available. For details on the 2006 reload, enter HELP RLOAD at an arrow prompt (=>). See also:

http://www.nlm.nih.gov/mesh/

http://www.nlm.nih.gov/pubs/techbull/nd04/nd04\_mesh.html

http://www.nlm.nih.gov/pubs/techbull/nd05/nd05\_med\_data\_changes.html

http://www.nlm.nih.gov/pubs/techbull/nd05/nd05 2006 MeSH.html

OLDMEDLINE is covered back to 1950.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2006 vocabulary.

This file contains CAS Registry Numbers for easy and accurate substance identification.

## FILE BIOSIS

FILE COVERS 1969 TO DATE.

CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 5 July 2006 (20060705/ED)

## FILE EMBASE

FILE COVERS 1974 TO 12 Jul 2006 (20060712/ED)

EMBASE has been reloaded. Enter HELP RLOAD for details.

12/07/2006

EMBASE is now updated daily. SDI frequency remains weekly (default) and biweekly.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE JAPIO

FILE LAST UPDATED: 3 APR 2006 <20060403/UP>
FILE COVERS APRIL 1973 TO DECEMBER 22, 2005

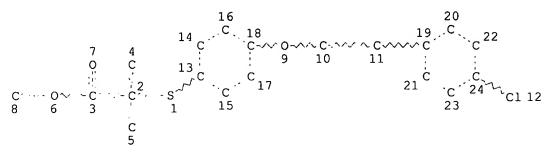
- >>> GRAPHIC IMAGES AVAILABLE <<<
- >>> NEW IPC8 DATA AND FUNCTIONALITY NOT YET AVAILABLE IN THIS FILE.
  USE IPC7 FORMAT FOR SEARCHING THE IPC. WATCH THIS SPACE FOR FURTHER
  DEVELOPMENTS AND SEE OUR NEWS SECTION FOR FURTHER INFORMATION
  ABOUT THE IPC REFORM <<<

FILE JICST-EPLUS FILE COVERS 1985 TO 10 JUL 2006 (20060710/ED)

THE JICST-EPLUS FILE HAS BEEN RELOADED TO REFLECT THE 1999 CONTROLLED TERM (/CT) THESAURUS RELOAD.

FILE USPATFULL
FILE COVERS 1971 TO PATENT PUBLICATION DATE: 11 Jul 2006 (20060711/PD)
FILE LAST UPDATED: 11 Jul 2006 (20060711/ED)
HIGHEST GRANTED PATENT NUMBER: US7076805
HIGHEST APPLICATION PUBLICATION NUMBER: US2006150291
CA INDEXING IS CURRENT THROUGH 11 Jul 2006 (20060711/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 11 Jul 2006 (20060711/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2006
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2006

=> d que stat 115 L12 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 24

STEREO ATTRIBUTES: NONE

L14 2 SEA FILE=REGISTRY SSS FUL L12 L15 2 SEA FILE=HCAPLUS ABB=ON L14

=> d ibib abs hitstr 115 1-2

L15 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:550873 HCAPLUS

DOCUMENT NUMBER: 141:82339

TITLE: Use of  $\alpha$ -phenylthiocarboxylic and

 $\alpha\text{-phenyloxycarboxylic}$  acids with serum

glucose-lowering and serum lipid-lowering activity

INVENTOR(S): Giannessi, Fabio; Tassoni, Emanuela; Tinti, Maria Ornella; Pessotto, Pompeo; Dell'Uomo, Natalina;

Sciarroni, Anna Floriana; Brunetti, Tiziana; Milazzo,

Ferdinando Maria

PATENT ASSIGNEE(S): Sigma-Tau Industrie Farmaceutiche Riunite S.p.A.,

Italy

SOURCE: PCT Int. Appl., 76 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT	NO.			KIN	D	DATE			APPL	ICAT	ION	NO.		D	ATE	
					_									_		
WO 2004056355			A1 20040708			WO 2003-IT820					20031216					
W:	ΑE,	AG,	AL,	AM,	AT,	ΑU,	ΑŻ,	BA,	BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,	CN,
	co,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FΙ,	GB,	GD,	GE,	GH,
	GM,	HR,	ΗU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	ΚP,	KR,	ΚZ,	LC,	LK,	LR,
	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	ΜZ,	NI,	NO,	NZ,	OM,
	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	ТJ,	TM,	TN,
	TR,	TT,	ΤZ,	UA,	ŪG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	zw			
RW:	BW,	GH,	GM,	ΚE,	LS,	MW,	ΜZ,	SD,	SL,	SZ,	ΤZ,	UG,	ZM,	ZW,	AM,	ΑZ,
	BY,	KG,	ΚZ,	MD,	RU,	ТJ,	TM,	ΑT,	ΒE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,
	ES,	FI,	FR,	GB,	GR,	ΗU,	ΙE,	ΙT,	LU,	MC,	NL,	PT,	RO,	SE,	SI,	SK,

TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG CA 2506627 AΑ 20040708 CA 2003-2506627 20031216 AU 2003288546 AU 2003-288546 20031216 Α1 20040714 20050914 EP 2003-780669 20031216 EP 1572180 A1 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK BR 2003-17359 20031216 BR 2003017359 Α 20051108 CN 2003-80106699 CN 1728992 Α 20060201 20031216 T2 JP 2004-561981 JP 2006512362 20060413 20031216 PRIORITY APPLN. INFO.: IT 2002-RM629 20021219 WO 2003-IT820 W 20031216 OTHER SOURCE(S): MARPAT 141:82339

GI

$$R-(CH_2)_n+Q$$
 $p$ 
 $R=\frac{1}{R^2}$ 

The invention describes the use of derivs. of  $\alpha$ -phenylthiocarboxylic and  $\alpha$ -phenyloxycarboxylic acids I [R = H, (un)substituted (hetero)aryl; n = 0-3; p = 0, 1; X = OH, O-(Cl-4 alkyl); R1, R2 = H, Cl-5 alkyl, COX; Q = NH, O, S, NHC(O)O, etc.; Y = O, S] for the preparation of a medicament for the prophylaxis and treatment of diabetes, particularly type 2 diabetes, its complications, the various forms of insulin resistance, and hyperlipidemias. Compound preparation is also described. IT 566189-21-7P 566189-42-2P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(phenylthiocarboxylic and phenyloxycarboxylic acid derivs. with serum glucose-lowering and serum lipid-lowering activity)

RN 566189-21-7 HCAPLUS

CN Propanoic acid, 2-[[4-[2-(4-chlorophenyl)ethoxy]phenyl]thio]-2-methyl-, methyl ester (9CI) (CA INDEX NAME)

RN 566189-42-2 HCAPLUS

CN Propanoic acid, 2-[[4-[2-(2,4-dichlorophenyl)ethoxy]phenyl]thio]-2-methyl-, methyl ester (9CI) (CA INDEX NAME)

$$C1$$
 $CH_2-CH_2-O$ 
 $Me$ 
 $O$ 
 $S-C-C-OMe$ 
 $Me$ 

REFERENCE COUNT:

12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2003:570951 HCAPLUS

DOCUMENT NUMBER:

139:133346

TITLE:

Preparation of derivatives of  $\alpha$ -

phenylthiocarboxylic and  $\alpha$ -phenyloxycarboxylic

acids useful for the treatment of diseases responding

to PPAR $\alpha$  activation

INVENTOR(S):

Giannessi, Fabio; Dell'Uomo, Natalina; Tassoni, Emanuela; Tinti, Maria Ornella; Sciarroni, Anna

Floriana; Bandera, Monica; Pessotto, Pompeo; Arduini,

Arduino

PATENT ASSIGNEE(S):

Sigma-Tau Industrie Farmaceutiche Riunite S.p.A.,

Italy

SOURCE:

PCT Int. Appl., 52 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.	DATE			
WO 2003059875 WO 2003059875		WO 2003-IT11	20030115			
W: AE, AG, AL, CO, CR, CU, GM, HR, HU, LS, LT, LU,	AM, AT, AU, AZ, CZ, DE, DK, DM, ID, IL, IN, IS, LV, MA, MD, MG,	BA, BB, BG, BR, BY, DZ, EC, EE, ES, FI, JP, KE, KG, KP, KR, MK, MN, MW, MX, MZ, SK, SL, TJ, TM, TN,	GB, GD, GE, GH, KZ, LC, LK, LR, NO, NZ, OM, PH,			
RW: GH, GM, KE, KG, KZ, MD, FI, FR, GB,	RU, TJ, TM, AT, GR, HU, IE, IT,	ZW SL, SZ, TZ, UG, ZM, BE, BG, CH, CY, CZ, LU, MC, NL, PT, SE, GQ, GW, ML, MR, NE,	DE, DK, EE, ES, SI, SK, TR, BF,			
CA 2472223 AU 2003209679	AA 20030724 A1 20030730	CA 2003-2472223 AU 2003-209679 EP 2003-729547	20030115 20030115			
R: AT, BE, CH, IE, SI, LT, BR 2003006824 JP 2005514456 CN 1620429	DE, DK, ES, FR, LV, FI, RO, MK, A 20041221 T2 20050519 A 20050525	GB, GR, IT, LI, LU, CY, AL, TR, BG, CZ, BR 2003-6824 JP 2003-559979 CN 2003-802289 US 2004-501472 IT 2002-RM14 WO 2003-IT11	NL, SE, MC, PT, EE, HU, SK 20030115 20030115 20030115 20041110 A 20020115			
OTHER SOURCE(S):	MARPAT 139:1333		W 20030113			

$$R-\left[Z\right]_{m}-\left[-\frac{R^{3}}{C\cdot j}_{n}-\left[Q\right]_{p|i}\right]$$

$$R^{1}$$

$$R^{2}$$

$$R^{1}$$

$$R^{2}$$

AB Title compds. I [R = H, YCR5R6COX, mono- bi- tricyclic (hetero)aryl; m = 0-1; n = 0-3; when n = 1, R3-4 = H, alkyl, when n = 2-3, R3 = R4 = H; p = 0-1; X = OH, alkoxy; R1-2, R5-6 = H, alkyl, alkoxy, acyl, etc.; Q, Z = NH, O, S, amido, etc.; Y = O, S] are prepared For instance, 4-mercaptophenol is reacted with Me α-bromoisobutyrate (CH3CN, NaH) to give Me 2-(4-hydroxyphenylthio) isobutyrate. Selected compds. exhibit PPARα agonist activity at  $2\mu\text{M}$ . I are useful for the treatment of heart failure, the hyperlipemias and atherosclerosis.

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses) (preparation of derivs. of  $\alpha$ -phenylthiocarboxylic and  $\alpha$ -phenyloxycarboxylic acids as PPAR $\alpha$  agonists)

RN 566189-21-7 HCAPLUS

CN Propanoic acid, 2-[[4-[2-(4-chlorophenyl)ethoxy]phenyl]thio]-2-methyl-, methyl ester (9CI) (CA INDEX NAME)

IT 566189-42-2P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of derivs. of  $\alpha$ -phenylthiocarboxylic and  $\alpha$ -phenyloxycarboxylic acids as PPAR $\alpha$  agonists)

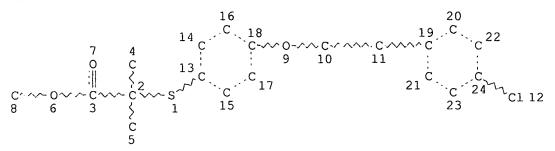
RN 566189-42-2 HCAPLUS

CN Propanoic acid, 2-[[4-[2-(2,4-dichlorophenyl)ethoxy]phenyl]thio]-2-methyl-, methyl ester (9CI) (CA INDEX NAME)

$$C1$$
 $CH_2-CH_2-O$ 
 $Me O$ 
 $S-C-C-OMe$ 
 $Me$ 

=> 🗆

=> d que stat 116 L12 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 24

STEREO ATTRIBUTES: NONE

L14 2 SEA FILE=REGISTRY SSS FUL L12 L16 1 SEA FILE=USPATFULL ABB=ON L14

=> d ibib abs hitstr 116 1-1

L16 ANSWER 1 OF 1 USPATFULL on STN

ACCESSION NUMBER: 2005:63629 USPATFULL

TITLE: Derivatives of alpha-phenylthiocarboxylic and

\$g(a)-phenyloxy-carboxylic acids useful for the treatment of diseases responding to pparalpha

activation

INVENTOR(S): Giannessi, Fabio, Roma, ITALY

Emanuela, Tassoni, Roma, ITALY Natalina, Dell'Uomo, Roma, ITALY Anna Floriana, Sciarroni, Roma, ITALY

Pompeo, Pessotto, Roma, ITALY Arduino, Arduini, Roma, ITALY Roma, Bandera, Roma, ITALY

Maria Ornella, Tinti, Roma, ITALY

PATENT ASSIGNEE(S): SIGMA-TAU INDUSTRIE FARMACEUTICHE RIUNITE S.p. A

(non-U.S. corporation)

NUMBER DATE

PRIORITY INFORMATION:

IT 2002-RM14 20020115

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

Searched by Mary Jane Ruhl Ext. 22524

LEGAL REPRESENTATIVE: NIXON & VANDERHYE, PC, 1100 N GLEBE ROAD, 8TH FLOOR,

ARLINGTON, VA, 22201-4714

NUMBER OF CLAIMS: 7
EXEMPLARY CLAIM: 1

1 1177

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Formula (I) compounds are described in which the substituents have the meanings described in the text, and which are useful for the treatment of diseases responding to PPAR $\alpha$  activation, such as heart failure, the hyperlipaemias and atherosclerosis.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 566189-21-7P

LINE COUNT:

(preparation of derivs. of  $\alpha\text{-phenylthiocarboxylic}$  and  $\alpha\text{-phenyloxycarboxylic}$  acids as PPAR $\alpha$  agonists)

RN 566189-21-7 USPATFULL

CN Propanoic acid, 2-[[4-[2-(4-chlorophenyl)ethoxy]phenyl]thio]-2-methyl-, methyl ester (9CI) (CA INDEX NAME)

IT 566189-42-2P

(preparation of derivs. of  $\alpha$ -phenylthiocarboxylic and  $\alpha$ -phenyloxycarboxylic acids as PPAR $\alpha$  agonists)

RN 566189-42-2 USPATFULL

CN Propanoic acid, 2-[[4-[2-(2,4-dichlorophenyl)ethoxy]phenyl]thio]-2-methyl-, methyl ester (9CI) (CA INDEX NAME)